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| 09/960,100      | 09/20/2001  | Katsuki Suematsu     | NAGAT25.001AUS      | 5086             |

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KNOBBE MARTENS OLSON & BEAR LLP  
2040 MAIN STREET  
FOURTEENTH FLOOR  
IRVINE, CA 92614

EXAMINER

KIANNI, KAVEH C

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2877

DATE MAILED: 08/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/960,100

Applicant(s)

SUEMATSU ET AL. **NC**

Examiner

Kevin C Kianni

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 is/are allowed.
- 6) ☒ Claim(s) 2, 3, 5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

**NOTE:** Acknowledgement made of applicant's election without traverse of the group II invention, claims 2-6.

#### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claim 1 is drawn to injecting a synthetic resin in a mold for forming said ferrule while holding a plurality of pins with a Young's modulus of  $(22 \text{ to } 59) \times 10^9 \text{ N/m}^2$  for forming said fiber holes at two points separated by a distance of 1.5 to 4 mm in a lengthwise direction of said pins, classified in class 385/60.
  - II. Claims 2-6, drawn to each fiber hole having a guide hole portion and a minute hole portion whose inside diameter is smaller than that of said guide hole portion, classified in class 385/80.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I, claim 1, and II, claims 2-6 are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case Groups I and II invention can be made using comprehensive fixing such as collet, crimp set screw, chuck and etc rather than using adhesive molding.

Art Unit: 2877

3. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Eric Nelson on July 1, 2003 a provisional election was made without traverse to prosecute the invention of Group II, claims 2-6. Affirmation of this election must be made by applicant in replying to this Office action. Claim 1 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

#### ***Drawings***

5. Label 1e, stated in page 1, line 15, is missing in figure 1. Appropriate correction is required.

#### ***Specification***

6. Claims 1 and 2 are objected to because of the following informalities: In claim 1 (page 15, line 5) and in claim 2 (page 15, line 13) the word pings is incorrectly spelled as pins. Appropriate correction is required. Through out the specification in at least page 2, line 7 the word pings is misspelled as pins. Appropriate correction is required.

#### ***Reason for Allowing Claim 4***

7. Claim 4 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious said guide hole portion having a taper portion formed on a minute hole portion side in such a way that said taper

portion is tapered toward said minute hole portion and has a length  $L_t$  set to  $1 \leq L_t/L_g \leq 1/3$  where  $L_g$  is a total length of said guide hole portion in combination with the rest of the limitations of the base claim.

### **Claim Rejections - 35 USC § 103**

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 3, and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsuka et al. (US 6162740).

Regarding claims 2, 3, 5 and 6, Ohtsuka teaches a ferrule (shown in at least fig. 1) comprising pin holes 10 for insertion of guide pins; plural fiber holes 13 for insertion of optical fibers 52, between the said pin holes 10, formed at predetermined intervals (shown in at least fig. 1, items fiber holes 13; see col. 4, lines 35-47), having a plurality of fiber holes (shown in at least fig. 1, fiber holes 13), an opening which communicates with said plurality of fiber holes and through which an adhesive for securely adhering said optical fibers in said fiber holes is injected (see at least col. 5, lines 35-44); each fiber hole having a guide hole portion and a minute hole portion whose inside diameter is smaller than that of said guide hole portion (shown in fig. 2 and 11, item tapered guide portion 23 and minute portion 21; see also col. 5, lines 6-7 and 35-44, and col. 8, lines 2-11); said guide hole portion being formed in such a way that said inside diameter

Art Unit: 2877

thereof becomes smaller continuously toward said minute hole portion (shown in at least fig. 2, item guide hole portion 23 tapers continuously toward minute portion 21).

However, Ohtsuka does not specifically teach: wherein the above plurality of fibers are of groups of plurality of fiber holes; and said guide hole portion being formed in such a way that said inside diameter thereof becomes smaller in a stepwise manner toward said minute hole portion. Nevertheless, Ohtsuka teaches a guide hole portion 23 being formed in such a way that said inside diameter thereof becomes smaller in a continuous manner toward said minute hole portion 21/22 as shown in fig. 2 and 11. Therefore, it would have been obvious to a person of ordinary skill in the art when the invention was made as a matter of design choice to produce the above plurality of holes 13 into a group of plurality of holes and modify the above continuously tapering holes into a conventional stepwise tapering holes since such modification would prevent optical transmission loss and would prevent the optical fibers from breaking (see col. 1, lines 57-61) and since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. and rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

#### ***Citation of Relevant Prior Art***

10. Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

Hirao 6478473 teaches guide hole portion with inside diameter being tapered in a stepwise manner toward minute hole portion.

Koyama JP363296008 teaches at least claim 3.

Schofield et al. 6478475 teaches at least claim 3.

Kakii et al. 4952263 teaches at least claim 3.

Kakii et al. 4708433

Shiino et al. 5611010

Xu et al. 6276842

These references are cited herein to show the relevance of the apparatus/methods taught within this reference as prior art.

#### ***Contact Information***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Cyrus Kianni whose telephone number is (703) 308-1216.

The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (703) 308-4881.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-7722, (for formal communications intended for entry)

**or:**


(703) 308-7721, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Art Unit: 2877

Hand delivered responses should be brought to Crystal Plaza 4, 2021  
South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should  
be directed to the Group Receptionist whose telephone number is (703) 308-0956.

Kevin Cyrus Kianni  
Patent Examiner  
Group Art Unit 2877

  
Frank Font  
Supervisory Patent Examiner  
Group Art Unit 2877

July 8, 2003